SCIENCE STUDY GUIDE

Course options and career opportunities

swinburne.edu.au/science
WHERE WILL SCIENCE TAKE YOU?

When you study science at Swinburne, you embark on a journey of discovery.

You'll experience practical learning and conduct research in world-class labs. You'll study in a university setting that has strong connections with industry and regularly collaborates with esteemed researchers.

Science equips you with excellent problem-solving skills so you can help make better sense of the world. And it takes you in many exciting career directions.

I want to learn how to use mathematics to model our world

STUDY
MATHEMATICS

WITH A DEGREE
Bachelor of Science (Professional) with a major in Applied Mathematics
Bachelor of Science with a major in Applied Mathematics
Pathway to a degree:
Diploma of Science (UniLink)

TO LEARN ABOUT
Mathematics
Chemistry
Physics
Astronomy/ Astrophysics
Environmental Science

TO BECOME A
• Mathematical researcher
• Quantitative analyst
• Financial analyst
• Actuary
• Biological and Climate Modeller

OR A DIPLOMA
Diploma of Laboratory Technology
Certificate IV in Laboratory Technology
Certificate IV in Science

TO BECOME
• Laboratory technician
• Technical officer

I want to learn about matter and how the universe works

STUDY
PHYSICS

WITH A DEGREE
Bachelor of Science (Professional) with a major in Physics
Bachelor of Science with a major in Physics
Pathway to a degree:
Diploma of Science (UniLink)

TO LEARN ABOUT
Mathematics
Analysis
Optimisation
Modelling
Computation

TO BECOME A
• Research and development physicist
• Financial modeller and forecaster
• Medical physicist
• Meteorologist and climate modeller
• Astrophysicist
• Data Analyst

OR A DIPLOMA
Diploma of Laboratory Technology
Certificate IV in Laboratory Technology
Certificate IV in Science

TO BECOME
• Laboratory technician
• Technical officer

I want to learn about how molecules react and can be manipulated

STUDY
CHEMISTRY

WITH A DEGREE
Bachelor of Science (Professional) with a major in Chemistry
Bachelor of Science with a major in Chemistry
Pathway to a degree:
Diploma of Science (UniLink)

TO LEARN ABOUT
Chemistry
Environmental Science
Mathematics

TO BECOME A
• Chemical researcher
• Analytical forensic scientist
• Agricultural or environmental scientist
• Diagnostic laboratory scientist
• Food or beverage production technician
• Pharmaceutical scientist

OR A DIPLOMA
Diploma of Laboratory Technology
Certificate IV in Laboratory Technology
Certificate IV in Science

TO BECOME
• Laboratory technician
• Technical officer

I want to learn about how molecules make your body work

STUDY
BIOCHEMISTRY

WITH A DEGREE
Bachelor of Science (Professional) with a major in Biochemistry
Bachelor of Science with a major in Biochemistry
Pathway to a degree:
Diploma of Science (UniLink)

TO LEARN ABOUT
Chemistry
Cell science

TO BECOME A
• Biochemical researcher
• Clinical biochemist
• Agricultural or environmental scientist
• Diagnostic laboratory scientist
• Food or beverage production technician
• Pharmaceutical scientist

OR A DIPLOMA
Diploma of Laboratory Technology
Certificate IV in Laboratory Technology
Certificate IV in Science

TO BECOME
• Laboratory technician
• Technical officer

I want to learn about cells and how to change them

STUDY
BIOTECHNOLOGY

WITH A DEGREE
Bachelor of Science (Professional) with a major in Biotechnology
Bachelor of Science with a major in Biotechnology
Pathway to a degree:
Diploma of Science (UniLink)

TO LEARN ABOUT
Chemistry
Cell science

TO BECOME A
• Biotechnology researcher
• Clinical biochemist
• Agricultural or environmental scientist
• Diagnostic laboratory scientist
• Food or beverage production technician
• Pharmaceutical scientist

OR A DIPLOMA
Diploma of Laboratory Technology
Certificate IV in Laboratory Technology
Certificate IV in Science

TO BECOME
• Laboratory technician
• Technical officer

I want to learn about water and agriculture, and how to manage them

STUDY
ENVIRONMENTAL SCIENCE

WITH A DEGREE
Bachelor of Science (Professional) with a major in Environmental Science
Bachelor of Science with a major in Environmental Science
Pathway to a degree:
Diploma of Science (UniLink)

TO LEARN ABOUT
Environmental Science

TO BECOME A
• Environmental scientist or consultant
• Sustainability analyst
• Water quality expert
• Plant and animal breeder

OR A DIPLOMA
Diploma of Laboratory Technology
Certificate IV in Laboratory Technology
Certificate IV in Science

TO BECOME
• Laboratory technician
• Technical officer
At Swinburne, getting you job-ready is at the core of what we do. Our Work Integrated Learning options prepare you for the day-to-day requirements of work, helping you become a more competitive graduate. You’ll build invaluable skills, career networks and, most importantly, the confidence of knowing you have what it takes to land a job in your field. This is the Swinburne Advantage.

Visit swinburne.edu.au/workintegratedlearning

Professional degrees
Professional degrees are available to students who have completed an Australian Year 12 program. These courses extend the standard degrees to include a professional placement co-major comprising a 12-month work placement. The professional placement co-major is credit-bearing and will strengthen your employability. You’ll benefit from Swinburne’s unique industry partnerships and be paid during your placement. Look for degrees with (Professional) in the title.

Double degrees
Double degrees are a great way to broaden your study experience and are highly respected by employers. They combine two areas of study and on completion you’ll be awarded two degrees. A double degree is generally only one year longer than a single degree.

Consider combining your IT degree with a degree in another study area by studying:
- Bachelor of Arts/Bachelor of Science
- Bachelor of Education (Secondary)/Bachelor of Science
- Bachelor of Engineering (Honours)/Bachelor of Science
- Bachelor of Health Science/Bachelor of Science
- Bachelor of Laws/Bachelor of Science

Pathways to a degree
UNILINK DIPLOMAS
UniLink diplomas are equivalent to eight units of study (typically one year of full-time study) and can provide a pathway to the second year of a related bachelor degree.

These courses are an option for students who miss direct entry to a degree or who would benefit from a more supportive style of learning.

VOCATIONAL EDUCATION
Diplomas and certificates are vocational qualifications that provide practical teaching and skills for work. A vocational qualification could prepare you for your first job, help you retain or take the first step in a career change.

Successful completion of a vocational qualification may also allow you to progress to another qualification with advanced standing.

Scholarships
The Vice-Chancellor’s Excellence Scholarship is awarded to students in recognition of academic excellence. Recipients will receive $5000 per annum for the normal duration of their chosen degree, plus a one-off payment of $2000 towards an international study experience. They will also have the opportunity to join our High Achievers Program.

To learn more about the program visit swinburne.edu.au/highachievers

Swinburne also offers scholarships to students from indigenous backgrounds, students suffering from financial hardship and students who have relocated from regional areas to study.

For a full list of scholarships, including value and eligibility criteria, visit swinburne.edu.au/scholarships